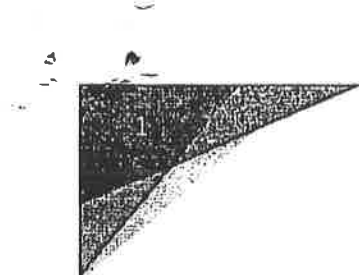


DR. TROY POPE'S RULE 26 REPORT



Troy T. Pope MD, FACEP Consulting
Emergency Medicine
67 Lula Cove Rd, Weaverville, NC 28787
916-420-4337 troypope@mac.com

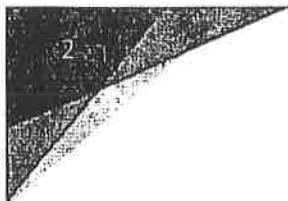
Expert Report

- Submitted To -

Brian Cummings, Esquire
Cummings Manookian, PLC
45 Music Square West
Nashville, TN 37203

John Ruffino

February 2, 2018



Troy T. Pope MD, FACEP Consulting

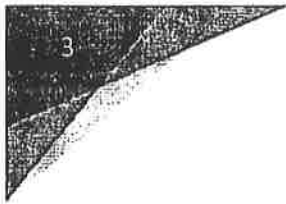
Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Table of Contents

	Page
Parties	3
Scope of Report	3
Executive Summary	3
Opinion	11
Discussion	22
Qualifications	30
Compensation	32
Past Testimony	32
Materials Reviewed	32
References	33
Opinion Statement	34



Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Parties

StoneCrest Medical Center, Smyrna, Rutherford County, Tennessee: Hospital

Dr. Clark Archer: Attending Emergency Medicine physician

Carol McCulloh, RN: Emergency Department nurse

Tony Bromley, RN: Emergency Department nurse

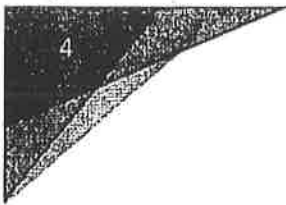
Scope of Report

I have been asked to render an expert medical opinion on the following:

1. *What care and treatment was required under the standard of care as it applied to the care and treatment provided to John Ruffino on February 17, 2016 in the StoneCrest ER in the Smyrna, Rutherford County, Tennessee medical community or in similar medical communities?*
2. *Did the care, skill or knowledge exercised or exhibited in the treatment of John Ruffino fall outside acceptable medical professional standards, when IV rtPA was NOT used in his care and he was NOT immediately transferred to a comprehensive stroke center?*
3. *What are my opinions in this matter on causation?*

Executive Summary

1. John Ruffino is a 59 year old male with significant cognitive and physical disabilities resulting from an ischemic stroke on February 17, 2016.



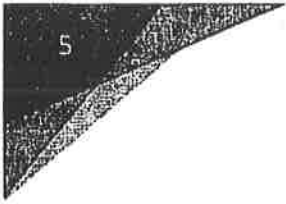
Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

2. An ischemic stroke is an irreversible brain injury caused by an artery being blocked in the brain's circulation, similar to a heart attack in the brain.
3. The National Institutes of Health created a tool in the 1990's to measure the severity of an acute stroke called the National Institutes of Health Stroke Scale (NIHSS). **Figure 1**
4. The NIHSS rapidly became the standard and remains the standard for measuring the severity of an acute ischemic stroke.
5. The US FDA approved the use of intravenous (IV) rtPA (recombinant tissue plasminogen activator) for ischemic stroke in 1996.
6. By 2007, administration of IV rtPA had been widely accepted by the American Heart Association (AHA) and the American Stroke Association (ASA) as the medicine of choice for treating ischemic stroke, if initiated within 3 hours of the onset of the stroke.
7. After an update in 2009, further expanding the use of IV rtPA, the most recent and comprehensive update on the use of IV rtPA was issued by the AHA and ASA in 2013.
8. In this 2013 update, the use of IV rtPA within 4.5 hours of the onset of symptoms had been established as the standard of care in patients meeting the inclusion and exclusion criteria. (**Figure 2** and **Figure 3**)
9. By 2015, the American College of Emergency Physicians (ACEP) had drafted a clinical policy supporting the use of IV rtPA for ischemic stroke within 4.5 hours of the onset of symptoms in patients meeting the inclusion and exclusion criteria.
10. Mr. Ruffino presented to the StoneCrest emergency department on February 27, 2016 at 0949.
11. Labs drawn at 1015 demonstrated a normal platelet count of 226 (normal 145 – 483). A platelet count under 100 would have made IV rtPA too dangerous for Mr. Ruffino.
12. The same labs demonstrated an INR of 0.95 (normal 0.9-1.1). This means Mr. Ruffino's blood was clotting normally. An INR greater than 1.7 would have made IV rtPA too dangerous for Mr. Ruffino.



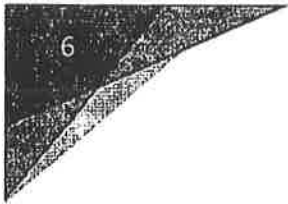
Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

13. By 1037, a CT scan of the head had been completed and read by the radiologist, showing no sign of bleeding in the brain. Bleeding in the brain would have made IV rtPA too dangerous for Mr. Ruffino
14. The patient was last seen acting normally with no neurological deficit by Nurse Bromley at 1200, establishing the time of onset.
15. Dr. Clark Archer became involved in the patients care at 1220, 20 minutes after the time of onset.
16. At 1222 Mr. Ruffino's blood pressure was documented as 150/79. A blood pressure greater than 185 systolic (top number) or 110 diastolic (bottom number) would have required treatment to reduce the pressure prior to the administration of IV rtPA.
17. By 1300 Nurse Bromley had communicated to Dr. Archer that John Ruffino was neurologically normal prior to 1200.
18. At 1300, Dr. Archer had all of the information needed to determine that John Ruffino was suffering from an acute ischemic stroke.
19. At 1300, Dr. Archer had all of the information needed to determine that John Ruffino met all of the inclusion criteria for the administration of IV rtPA.
 - a. Mr. Ruffino had a measurable neurologic deficit with an NIHSS score of 4, as documented by Dr. Archer on StoneCrest Medical Center – 003
 - b. The onset of symptoms was less than 3 hours before the beginning of treatment
 - c. Mr. Ruffino was over the age of 18
20. At 1300, Dr. Archer had all of the information needed to determine that John Ruffino had no exclusion criteria for the administration of IV rtPA
21. On February 17, 2016 the standard of care for the treatment of John Ruffino was the administration of IV rtPA followed by immediate transfer to a comprehensive stroke center.
22. Dr. Clark Archer did not meet the standard of care because he did not administer IV rtPA and immediately transfer the patient to a comprehensive stroke center.
23. It is my opinion to a reasonable degree of medical probability that:



Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

- a. John Ruffino had an acute ischemic stroke on February 17, 2016 that required timely care
- b. The care, skill or knowledge exercised or exhibited in the treatment of John Ruffino fell outside acceptable medical professional standards when he was not given IV rtPA and transferred to a comprehensive stroke center
- c. Had Dr. Archer taken action to make sure that the patient was provided with treatment for this new stroke soon after 1220, the patient likely would have had a better outcome – including that the patient would have less of a deficit and less severe ongoing problems from the stroke
- d. If Nurse Bromley did not communicate to Dr. Archer that John Ruffino had the acute onset of new neurologic deficits sometime between 1200 and 1300, this also does not meet the standard of care.

Figure 1: National Institutes of Health Stroke Scale (NIHSS)

(Begin figure 1)

Instructions	Scale Definition	Score
1a. Level of consciousness: The investigator must choose a response if a full evaluation is prevented by such obstacles as an endotracheal tube, language barrier, orotracheal trauma/bandages. A 3 is scored only if the patient makes no movement (other than reflexive posturing) in response to noxious stimulation.	0 = Alert; keenly responsive. 1 = Not alert; but arousable by minor stimulation to obey, answer, or respond. 2 = Not alert; requires repeated stimulation to attend, or is obtunded and requires strong or painful stimulation to make movements (not stereotyped). 3 = Responds only with reflex motor or autonomic effects or totally unresponsive, flaccid, and areflexic.	
1b. LOC questions: The patient is asked the month and his/her age. The answer must be correct - there is no partial credit for being close. Aphasic and stuporous patients who do not comprehend the questions will score 2. Patients unable to speak because of endotracheal intubation, orotracheal trauma, severe dysarthria from any cause, language barrier, or any other problem not secondary to aphasia are given a 1. It is important that only the initial answer be graded and that the examiner not "help" the patient with verbal or non-verbal cues.	0 = Answers both questions correctly. 1 = Answers one question correctly. 2 = Answers neither question correctly.	

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

<p>1c. LOC commands: The patient is asked to open and close the eyes and then to grip and release the non-paretic hand. Substitute another one step command if the hands cannot be used. Credit is given if an unequivocal attempt is made but not completed due to weakness. If the patient does not respond to command, the task should be demonstrated to him or her (pantomime), and the result scored (ie, follows none, one or two commands). Patients with trauma, amputation, or other physical impediments should be given suitable one-step commands. Only the first attempt is scored.</p>	<p>0 = Performs both tasks correctly.</p> <p>1 = Performs one task correctly.</p> <p>2 = Performs neither task correctly.</p>	
<p>2. Best gaze: Only horizontal eye movements will be tested. Voluntary or reflexive (oculocephalic) eye movements will be scored, but caloric testing is not done. If the patient has a conjugate deviation of the eyes that can be overcome by voluntary or reflexive activity, the score will be 1. If a patient has an isolated peripheral nerve paresis (CN III, IV or VI), score a 1. Gaze is testable in all aphasic patients. Patients with ocular trauma, bandages, pre-existing blindness, or other disorder of visual acuity or fields should be tested with reflexive movements, and a choice made by the investigator. Establishing eye contact and then moving about the patient from side to side will occasionally clarify the presence of a partial gaze palsy.</p>	<p>0 = Normal.</p> <p>1 = Partial gaze palsy; gaze is abnormal in one or both eyes, but forced deviation or total gaze paresis is not present.</p> <p>2 = Forced deviation, or total gaze paresis not overcome by the oculocephalic maneuver.</p>	
<p>3. Visual: Visual fields (upper and lower quadrants) are tested by confrontation, using finger counting or visual threat, as appropriate. Patients may be encouraged, but if they look at the side of the moving fingers appropriately, this can be scored as normal. If there is unilateral blindness or enucleation, visual fields in the remaining eye are scored. Score 1 only if a clear-cut asymmetry, including quadrantanopia, is found. If patient is blind from any cause, score 3. Double simultaneous stimulation is performed at this point. If there is extinction, patient receives a 1, and the results are used to respond to item 11.</p>	<p>0 = No visual loss.</p> <p>1 = Partial hemianopia.</p> <p>2 = Complete hemianopia.</p> <p>3 = Bilateral hemianopia (blind including cortical blindness).</p>	
<p>4. Facial palsy: Ask - or use pantomime to encourage - the patient to show teeth or raise eyebrows and close eyes. Score symmetry of grimace in response to noxious stimuli in the poorly responsive or non-comprehending patient. If facial trauma/bandages, orotracheal tube, tape or other physical barriers obscure the face, these should be removed to the extent possible.</p>	<p>0 = Normal symmetrical movements. 1 = Minor paralysis (flattened nasolabial fold, asymmetry on smiling).</p> <p>2 = Partial paralysis (total or near-total paralysis of lower face).</p> <p>3 = Complete paralysis of one or both sides (absence of facial movement in the upper and lower face).</p>	

Troy T. Pope MD, FACEP Consulting
Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

<p>5. Motor arm: The limb is placed in the appropriate position: extend the arms (palms down) 90 degrees (if sitting) or 45 degrees (if supine). Drift is scored if the arm falls before 10 seconds. The aphasic patient is encouraged using urgency in the voice and pantomime, but not noxious stimulation. Each limb is tested in turn, beginning with the non-paretic arm. Only in the case of amputation or joint fusion at the shoulder, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice.</p>	<p>0 = No drift; limb holds 90 (or 45) degrees for full 10 seconds.</p> <p>1 = Drift; limb holds 90 (or 45) degrees, but drifts down before full 10 seconds; does not hit bed or other support.</p> <p>2 = Some effort against gravity; limb cannot get to or maintain (if cued) 90 (or 45) degrees, drifts down to bed, but has some effort against gravity.</p> <p>3 = No effort against gravity; limb falls. 4 = No movement.</p> <p>UN = Amputation or joint fusion, explain: _____</p> <p>5a. Left arm</p> <p>5b. Right arm</p>	
<p>6. Motor leg: The limb is placed in the appropriate position: hold the leg at 30 degrees (always tested supine). Drift is scored if the leg falls before 5 seconds. The aphasic patient is encouraged using urgency in the voice and pantomime, but not noxious stimulation. Each limb is tested in turn, beginning with the non-paretic leg. Only in the case of amputation or joint fusion at the hip, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice.</p>	<p>0 = No drift; leg holds 30-degree position for full 5 seconds.</p> <p>1 = Drift; leg falls by the end of the 5- second period but does not hit bed.</p> <p>2 = Some effort against gravity; leg falls to bed by 5 seconds, but has some effort against gravity.</p> <p>3 = No effort against gravity; leg falls to bed immediately.</p> <p>4 = No movement.</p> <p>UN = Amputation or joint fusion, explain: _____</p> <p>6a. Left leg</p> <p>6b. Right leg</p>	
<p>7. Limb ataxia: This item is aimed at finding evidence of a unilateral cerebellar lesion. Test with eyes open. In case of visual defect, ensure testing is done in intact visual field. The finger-nose-finger and heel-shin tests are performed on both sides, and ataxia is scored only if present out of proportion to weakness. Ataxia is absent in the patient who cannot understand or is paralyzed. Only in the case of amputation or joint fusion, the examiner should record the score as untestable (UN), and clearly write the explanation for this choice. In case of blindness, test by having the patient touch nose from extended arm position.</p>	<p>0 = Absent.</p> <p>1 = Present in one limb.</p> <p>2 = Present in two limbs.</p> <p>UN = Amputation or joint fusion, explain: _____</p>	

Troy T. Pope MD, FACEP Consulting
Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

<p>8. Sensory: Sensation or grimace to pinprick when tested, or withdrawal from noxious stimulus in the obtunded or aphasic patient. Only sensory loss attributed to stroke is scored as abnormal and the examiner should test as many body areas (arms [not hands], legs, trunk, face) as needed to accurately check for hemisensory loss. A score of 2, "severe or total sensory loss," should only be given when a severe or total loss of sensation can be clearly demonstrated. Stuporous and aphasic patients will, therefore, probably score 1 or 0. The patient with brainstem stroke who has bilateral loss of sensation is scored 2. If the patient does not respond and is quadriplegic, score 2. Patients in a coma (item 1a=3) are automatically given a 2 on this item.</p>	<p>0 = Normal; no sensory loss.</p> <p>1 = Mild-to-moderate sensory loss; patient feels pinprick is less sharp or is dull on the affected side; or there is a loss of superficial pain with pinprick, but patient is aware of being touched.</p> <p>2 = Severe to total sensory loss; patient is not aware of being touched in the face, arm, and leg.</p>	
<p>9. Best language: A great deal of information about comprehension will be obtained during the preceding sections of the examination. For this scale item, the patient is asked to describe what is happening in the attached picture, to name the items on the attached naming sheet and to read from the attached list of sentences. Comprehension is judged from responses here, as well as to all of the commands in the preceding general neurological exam. If visual loss interferes with the tests, ask the patient to identify objects placed in the hand, repeat, and produce speech. The intubated patient should be asked to write. The patient in a coma (item 1a=3) will automatically score 3 on this item. The examiner must choose a score for the patient with stupor or limited cooperation, but a score of 3 should be used only if the patient is mute and follows no one-step commands.</p>	<p>0 = No aphasia; normal.</p> <p>1 = Mild-to-moderate aphasia; some obvious loss of fluency or facility of comprehension, without significant limitation on ideas expressed or form of expression. Reduction of speech and/or comprehension, however, makes conversation about provided materials difficult or impossible. For example, in conversation about provided materials, examiner can identify picture or naming card content from patient's response.</p> <p>2 = Severe aphasia; all communication is through fragmentary expression; great need for inference, questioning, and guessing by the listener. Range of information that can be exchanged is limited; listener carries burden of communication. Examiner cannot identify materials provided from patient response.</p> <p>3 = Mute, global aphasia; no usable speech or auditory comprehension.</p>	
<p>10. Dysarthria: If patient is thought to be normal, an adequate sample of speech must be obtained by asking patient to read or repeat words from the attached list. If the patient has severe aphasia, the clarity of articulation of spontaneous speech can be rated. Only if the patient is intubated or has other physical barriers to producing speech, the examiner should record the score as untestable (UN), and clearly write an explanation for this choice. Do not tell the patient why he or she is being tested.</p>	<p>0 = Normal.</p> <p>1 = Mild-to-moderate dysarthria; patient slurs at least some words and, at worst, can be understood with some difficulty.</p> <p>2 = Severe dysarthria; patient's speech is so slurred as to be unintelligible in the absence of or out of proportion to any dysphasia, or is mute/anarthric.</p> <p>UN = Intubated or other physical barrier,</p> <p>explain: _____</p>	

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

<p>11. Extinction and Inattention: Sufficient information to identify neglect may be obtained during the prior testing. If the patient has a severe visual loss preventing visual double simultaneous stimulation, and the cutaneous stimuli are normal, the score is normal. If the patient has aphasia but does appear to attend to both sides, the score is normal. The presence of visual spatial neglect or anosognosia may also be taken as evidence of abnormality. Since the abnormality is scored only if present, the item is never untestable.</p>	<p>0 = No abnormality.</p> <p>1 = Visual, tactile, auditory, spatial, or personal inattention or extinction to bilateral simultaneous stimulation in one of the sensory modalities.</p> <p>2 = Profound hemi-inattention or extinction to more than one modality; does not recognize own hand or orients to only one side of space.</p>	
	Total:	

(End Figure 1)

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

Figure 2. 2013 AHA/ASA Inclusion and Exclusion Characteristics of Patients with Ischemic Stroke Who Could Be treated with IV rtPA within 3 Hours from Symptom Onset

Table 10. Inclusion and Exclusion Characteristics of Patients With Ischemic Stroke Who Could Be Treated With IV rtPA Within 3 Hours From Symptom Onset

Inclusion criteria

Diagnosis of ischemic stroke causing measurable neurological deficit

Onset of symptoms <3 hours before beginning treatment

Aged ≥18 years

Exclusion criteria

Significant head trauma or prior stroke in previous 3 months

Symptoms suggest subarachnoid hemorrhage

Arterial puncture at noncompressible site in previous 7 days

History of previous intracranial hemorrhage

Intracranial neoplasm, arteriovenous malformation, or aneurysm

Recent intracranial or intraspinal surgery

Elevated blood pressure (systolic >185 mm Hg or diastolic >110 mm Hg)

Active internal bleeding

Acute bleeding diathesis, including but not limited to

Platelet count <100 000/mm³

Heparin received within 48 hours, resulting in abnormally elevated aPTT greater than the upper limit of normal

Current use of anticoagulant with INR >1.7 or PT >15 seconds

Current use of direct thrombin inhibitors or direct factor Xa inhibitors with elevated sensitive laboratory tests (such as aPTT, INR, platelet count, and ECT; TT; or appropriate factor Xa activity assays)

Blood glucose concentration <50 mg/dL (2.7 mmol/L)

CT demonstrates multilobar infarction (hypodensity >1/3 cerebral hemisphere)

Relative exclusion criteria

Recent experience suggests that under some circumstances—with careful consideration and weighting of risk to benefit—patients may receive fibrinolytic therapy despite 1 or more relative contraindications. Consider risk to benefit of IV rtPA administration carefully if any of these relative contraindications are present:

Only minor or rapidly improving stroke symptoms (clearing spontaneously)

Pregnancy

Seizure at onset with postictal residual neurological impairments

Major surgery or serious trauma within previous 14 days

Recent gastrointestinal or urinary tract hemorrhage (within previous 21 days)

Recent acute myocardial infarction (within previous 3 months)

The checklist includes some FDA-approved indications and contraindications for administration of IV rtPA for acute ischemic stroke. Recent guideline revisions have modified the original FDA-approved indications. A physician with expertise in acute stroke care may modify this list.

Onset time is defined as either the witnessed onset of symptoms or the time last known normal if symptom onset was not witnessed.

In patients without recent use of oral anticoagulants or heparin, treatment with IV rtPA can be initiated before availability of coagulation test results but should be discontinued if INR is >1.7 or PT is abnormally elevated by local laboratory standards.

In patients without history of thrombocytopenia, treatment with IV rtPA can be initiated before availability of platelet count but should be discontinued if platelet count is <100 000/mm³.

aPTT indicates activated partial thromboplastin time; CT, computed tomography; ECT, ecarin clotting time; FDA, Food and Drug Administration; INR, international normalized ratio; IV, intravenous; PT, partial thromboplastin time; rtPA, recombinant tissue plasminogen activator; and TT, thrombin time.

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Figure 3. 2013 AHA/ASA Inclusion and Exclusion Characteristics of Patients with Ischemic Stroke Who Could Be treated with IV rtPA after 3 and before 4.5 hours from symptom onset

Table 11. Additional Inclusion and Exclusion Characteristics of Patients With Acute Ischemic Stroke Who Could Be Treated With IV rtPA Within 3 to 4.5 Hours From Symptom Onset

Inclusion criteria

Diagnosis of ischemic stroke causing measurable neurological deficit

Onset of symptoms within 3 to 4.5 hours before beginning treatment

Relative exclusion criteria

Aged >80 years

Severe stroke (NIHSS>25)

Taking an oral anticoagulant regardless of INR

History of both diabetes and prior ischemic stroke

INR indicates International normalized ratio; IV, Intravenous; NIHSS, National Institutes of Health Stroke Scale; and rtPA, recombinant tissue plasminogen activator.

Opinion

A key determination in an ER setting for a stroke patient with regard to what care and treatment is required to be provided is when the patient was last seen neurologically normal. It is important for treating health care providers to be aware of a patient's condition with regard to whether and when they are neurologically normal, to communicate any such information to other providers when there is a belief that a patient has signs or symptoms of stroke, and for the ER physician in such a patient's care to promptly and properly act based on that information. When a patient was last seen neurologically normal is important with regard to stroke treatment because that information affects what type of treatment should be provided, because certain treatment is likely to have a positive effect on a stroke patient's immediate and long-term outcome if that treatment is provided promptly enough that irreversible brain injury has not already occurred due to the lack of proper blood flow caused by that stroke. For Mr. Ruffino, the medical records from StoneCrest and the deposition testimony of Nurse Carol McCulloch and Nurse Tony Bromley indicate that the medical providers involved with Mr. Ruffino's care from the time he presented to the ER at approximately 0949 through at least 1200 observed and recognized that Mr. Ruffino was neurologically normal. By the time that Dr. Archer first saw the patient at approximately 1220, the last time that the patient was seen neurologically normal was 1200 that same day.

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

When Dr. Archer saw the patient at approximately 1220 and identified neurological deficits, including abnormal speech and right-sided facial weakness, these were new neurological problems compared to what is documented in the medical records and what Nurse McCulloch and Nurse Bromley testified was the patient's condition from 0949-1200 that same day. When Dr. Archer saw the patient at approximately 1220, this was less than one hour after the patient was last seen neurologically normal at 1200, and Nurse Bromley testified that he told Dr. Archer by 1300 that day that the patient had been neurologically normal from 1000-1200 that day.

When Dr. Archer identified these new neurological deficits at or soon after 1220, these changes were present less than one hour after the patient was last seen neurologically normal by a healthcare provider at 1200. Dr. Archer was required under the standard of care to initiate the administration of tPA and arrange for transfer to a comprehensive stroke center for additional treatment, which likely would have included an endovascular thrombectomy.

Even if there were stroke symptoms present at approximately 0800-0830 on February 17, 2016, when Dr. Archer first saw the patient and recognized neurological deficits Dr. Archer was required under the standard of care to initiate the administration of tPA and arrange for transfer to a comprehensive stroke center for additional treatment, which likely would have included an endovascular thrombectomy.

Dr. Archer is the health care provider who communicated with the consulting neurologist, Dr. Chitturi, on the afternoon of February 17, 2016 regarding Mr. Ruffino. Nurse Bromley testified that ER nurses at StoneCrest did not communicate with consulting neurologists, and that this was the practice in the StoneCrest ER. It appears that Dr. Chitturi was not aware that the nurses who had cared for the patient from 0949-1200 on February 17, 2016 observed and recognized that the patient was neurologically normal during that period of time, and as Nurse Bromley testified Nurse Bromley told Dr. Archer by 1300 that day. Dr. Archer and Nurse Bromley were required by the standard of care to effectively communicate the fact that Mr. Ruffino was neurologically normal from 1000-1200, including during the serial neuro checks done during that time by the same nurse – Nurse Bromley. To the extent that Dr. Chitturi was not aware at the time that he was involved in the patient's care on February 17, 2016 that the medical providers involved with Mr. Ruffino's care from the time he presented to the ER at approximately 0949 through at least 1200 observed and recognized that Mr. Ruffino was neurologically normal, including during the performance of neuro checks at 1000, 1015, 1030, 1045, 1100, and 1200, Dr. Archer and Nurse Bromley fell below the standard of care by not effectively communicating that significant information in a way that would get to Dr. Chitturi that the patient was neurologically normal as late as 1200 on February 17, 2016, in that this information would likely have affected the care and treatment that Dr. Chitturi recommended and helped arrange.

When Dr. Archer identified these new neurological deficits at or soon after 1220, these changes were present less than one hour after the patient was last seen neurologically normal

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

by a healthcare provider at 1200. Had Dr. Archer taken action to make sure that the patient was provided with treatment for this new stroke soon after 1220, the patient likely would have had a better outcome – including that the patient would have less of a deficit and less severe ongoing problems from the stroke. The treatment that could have been provided by Dr. Archer and/or under his direction and/or management was to administer IV tPA and to arrange for transfer to a comprehensive stroke center. Had those things been done within at least 6 hours of Dr. Archer first seeing the patient at approximately 1220, Mr. Ruffino would have had a better outcome from his stroke. Dr. Archer did not do this– either directly or via arranging for other physicians to provide the necessary care. Dr. Archer did not provide any such care, did not arrange for any other physician to provide any such care, and instead Dr. Archer claims that it was too late by the time that Dr. Archer saw the patient for the type of treatment mentioned herein to likely improve the patient's outcome.

To the extent that any physician or other person claims that the stroke that occurred on February 17, 2016 occurred by 0800 or 0830 that day, I respectfully disagree. Any neurological symptoms that Mr. Ruffino had by 0830 that day were, at most, caused by a TIA (transient ischemic attack), which is different than a stroke, and it was not until at or after 1200 that day that Mr. Ruffino had the first sign or symptom of the severe stroke that he suffered that day. The TIA or TIAs occurred that morning, but the stroke did not manifest until after 1200 that day, and for the purposes of treating that stroke, Mr. Ruffino was last seen neurologically normal at 1200 that day. However, even if there were stroke symptoms present at approximately 0800-0830 on February 17, 2016, when Dr. Archer first saw the patient and recognized neurological deficits it was still within 6 hours of 0800-0830 for proper treatment to have likely provided a better outcome from the stroke. The treatment that could have been provided by Dr. Archer and/or under his direction and/or management was to administer IV tPA and to arrange for transfer to a comprehensive stroke center. Had those things been done within at least 6 hours of Dr. Archer first seeing the patient at approximately 1220, Mr. Ruffino would have had a better outcome from his stroke. In other words, if there were stroke symptoms present at approximately 0800-0830 on February 17, 2016 that anyone thought were persistent and continuous through when Dr. Archer first saw the patient and recognized neurological deficits by 1220-1300, it was still within 6 hours of 0800-0830 for proper treatment to have likely provided a better outcome for this stroke patient.

To the extent that any physician claims that whether the stroke occurred in the M1 or M2 segment in the brain affects the issue of whether timely treatment from the time Dr. Archer identified neurological deficits are or around 1220, I respectfully disagree. Regardless of what segment of the vascularization of the brain the occlusion was in that was causing the stroke that afternoon, my opinion remains that had the treatment referenced herein been provided within at least 6 hours of Dr. Archer first seeing the patient at approximately 1220, Mr. Ruffino would have had a better outcome from his stroke. This is because Mr. Ruffino likely had not suffered

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

significant, irreversible brain injury by 1220, and therefore there were real benefits that proper and timely treatment could have provided in response to Mr. Ruffino's stroke had that treatment been started within the 6 hour time window within which Mr. Ruffino was last seen neurologically normal for stroke purposes, at 1200, and when Dr. Archer first saw neurological changed by 1300. These benefits provided via timely treatment for the stroke with tPA and an endovascular thrombectomy would be due to that treatment helping to improve blood flow through the blood vessel that was not receiving proper blood flow. Medical literature published in peer-reviewed journals that demonstrate the beneficial effect that such treatment can have on stroke patients is attached to this affidavit as Collective Exhibit 2.

All of my opinions included in this document are opinions that I hold to a reasonable degree of medical probability, or said otherwise, to a "more likely than not" standard. The facts from the documents I have reviewed, as listed above, that are part of the basis for my opinions include, in addition to the facts referenced above, the following:

On February 17, 2016, Mr. Ruffino presented to the ER at StoneCrest at 0949 (StoneCrest 1). He called his boss while he was driving for work and he reported feeling dizzy (StoneCrest 11). His boss called 911, and Mr. Ruffino pulled his car over (StoneCrest 11).

The initial symptom onset was at 0830 that same day was documented as sudden in onset, and he arrived at the ER by ambulance at 0948 and was triaged by 0956 (StoneCrest 3, 10 and 11). He was triaged within 90 minutes of the initial symptom onset.

Mr. Ruffino had been on Neurontin for four days for "spells" that had been occurring for a month (StoneCrest 13).

The nurse who did the initial ER assessment was **Carol McCulloch, RN** (StoneCrest 11). Nurse McCulloch had approximately 30 years of ER experience by this time (Deposition of Nurse McCulloch, at 27:18-21).

Nurse McCulloch performed the initial assessment of Mr. Ruffino in the StoneCrest ER on February 17, 2016, and her first contact with him was at 0958 (Deposition of Nurse McCulloch, at 11:7-12:23).

If Nurse McCulloch thought an ER patient was having a stroke or recently had the acute onset of a new stroke, she could call a Code Stroke or make sure that a physician or other provider was aware of the situation, but she did neither such thing (Deposition of Nurse McCulloch, at 7:13-8:9 and 28:19-21).

Nurse McCulloch did not observe a single neurological deficit in Mr. Ruffino when she performed the initial assessment in the ER (Deposition of Nurse McCulloch, at 28:23-29:9).

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Based on her experience in the ER and with stroke patients by February 2016, Nurse McCulloch does not have "any reason" to think that Mr. Ruffino was having a stroke at the time of her initial assessment and she missed it (Deposition of Nurse McCulloch, at 30:20-25).

Mr. Ruffino did not have any neurological complaints during the initial ER assessment (Deposition of Nurse McCulloch, at 19:6-10).

When Nurse McCulloch performed the initial assessment of Mr. Ruffino in the ER, everything was completely normal, including he was alert and he could move all his extremities (Deposition of Nurse McCulloch, at 22:6-10 and 23:1-12).

Nurse McCulloch classified him as CTAS 3/urgent, which is "right in the middle" of the 1-5 range (Deposition of Nurse McCulloch, at 23:13-24:13; StoneCrest 11). If Nurse McCulloch felt that Mr. Ruffino was in the midst of a new stroke, she would not have classified him as a 3 (Deposition of Nurse McCulloch, at 25:8-18). Nurse McCulloch classified Mr. Ruffino as a 3 during her initial assessment of him in the ER on February 17, 2016 because she did not think he was having a stroke at that time (Deposition of Nurse McCulloch, at 25:19-26:23).

When **Robert Bromley, RN** saw Mr. Ruffino at 1000 as the nurse who would care for him, and then documented later about this initial contact, Nurse Bromley knew that the "Onset of Current Episode" was "Less Than 1 Hour Ago" (StoneCrest 11). Nurse Bromley testified that this entry means that the onset of whatever was present at 1000 first occurred within one hour of 1000 (Deposition of Nurse Bromley, at 54:20-55:5).

Nurse Bromley was familiar with what the standard of care required of him in caring for ER patients in February 2016 (Deposition of Nurse Bromley, at 22:1-5). By February 2016, Nurse Bromley had been an RN since 2007 (Deposition of Nurse Bromley, at 5:12-16). By February 2016, he had worked in the StoneCrest ER for 5-6 years (Deposition of Nurse Bromley, at 6:22-7-6 and 73:10-12). He usually worked at least two days a week in the StoneCrest ER (Deposition of Nurse Bromley, at 8:10-15). Nurse Bromley does not have any notes or documentation that is not contained in the StoneCrest chart (Deposition of Nurse Bromley, at 11:8-14).

Nurse Bromley has observed ER patients with stroke-like symptoms (Deposition of Nurse Bromley, at 15:6-8). In February 2016, he was familiar with the type of signs and symptoms that could exist that might indicate a patient was in the midst of a new stroke – including facial droop, weakness, or slurred speech (Deposition of Nurse Bromley, at 15:18-16:8).

In February 2016, Nurse Bromley knew how to do a thorough and complete neuro check (Deposition of Nurse Bromley, at 94:10-14).

At (1) 1000, (2) 1015, (3) 1030, (4) 1045, (5) 1110, and (6) 1200, Nurse Bromley documented that the neuro checks he performed at those times demonstrated that the patient was completely neurologically normal (StoneCrest 15-17). Nurse Bromley testified that he did

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

neuro checks at those times and that his documentation regarding those neuro check is accurate (Deposition of Nurse Bromley, at 80:4-7 and 104:1-9).

Nurse Bromley remembers Mr. Ruffino as an ER patient (Deposition of Nurse Bromley, at 11:15-20).

At 1000, Nurse Bromley performed a neuro check and he recognized that every neurological item that was a part of his neuro check was normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 55:19-56:5, 74:15-22, 83:15-19, 86:10-14; StoneCrest 12 and 15).¹ At 1000, Nurse Bromley recognized that Mr. Ruffino did not have slurred speech, he was moving his arms, he was moving his legs, he walked to the bathroom, and he changed his own clothes (Deposition of Nurse Bromley, at 77:17-78:8). Nurse Bromley believes that the neuro check he performed on Mr. Ruffino at 1000 was performed per the applicable standard of care (Deposition of Nurse Bromley, at 82:1-6).

Nurse Bromley testified that he had no reason to think at 1000 that this patient had a single sign or symptom of a stroke (Deposition of Nurse Bromley, at 90:16-19). If he thought Mr. Ruffino began to demonstrate any signs or symptoms of a stroke (of which a physician was not aware) he would have told a physician so that a Code Stroke could be called (Deposition of Nurse Bromley, at 90:20-91:1).

At 1001, a Troponin I was ordered (StoneCrest 34). At 1002, a PTINR was ordered (StoneCrest 34). Mr. Ruffino's PT was 10.1 [9/5-11/6] and his INR was 0.95 [0.9-1.1] (StoneCrest 6).

At 1002, a head CT was ordered and it showed no acute intracranial abnormality, but there was calcific plaque of the distal left vertebral artery (StoneCrest 7, 36, and 63). This head CT did not demonstrate any tissue changes suggesting a new onset stroke or consistent with a prior stroke.

At 1008, Nurse Bromley recognized that the patient did not have an acute stroke or neurological diagnosis, as he documented in his corresponding note (Deposition of Nurse Bromley, at 56:11-57:17; StoneCrest 12). Nurse Bromley agreed that his documentation indicates that the patient was "completely normal" at 1008 with regard to neurological signs, symptoms, and conditions (Deposition of Nurse Bromley, at 58:12-17; StoneCrest 12). Around this time, the patient passed the swallow screen, which led to Nurse Bromley providing the patient with food to eat (Deposition of Nurse Bromley, at 124:4-20).

¹ Nurse Bromley testified that the only mention in his documentation regarding dizziness refers to that reported dizziness being going on for a month (Deposition of Nurse Bromley, at 68:6-69:22; StoneCrest 12). Nurse Bromley testified that if he ever wanted to document that he thought Mr. Ruffino had dizziness under his care, he could have typed that into a note, and he never typed in such a thing (Deposition of Nurse Bromley, at 130:14-131:1).

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

At 1015, Nurse Bromley performed a neuro check, every neurological item that was a part of his neuro check was completely normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 64:10-15 and 92:4-8; StoneCrest 15-16).

At 1015, a PCXR was performed that was interpreted as being normal (StoneCrest 64).

At 1030, Nurse Bromley performed a neuro check, every neurological item that was a part of his neuro check was completely normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 92:11-21; StoneCrest 12). At 1030, and as Nurse Bromley documented, Mr. Ruffino walked to the restroom with a steady and even gait (Deposition of Nurse Bromley, at 93:3-25; StoneCrest 15-16).

At 1045, Nurse Bromley performed a neuro check, every neurological item that was a part of his neuro check was completely normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 94:16-20; StoneCrest 16).

At 1100, Nurse Bromley performed a neuro check, every neurological item that was a part of his neuro check was completely normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 95:1-12; StoneCrest 17).

At 1200, Nurse Bromley performed a neuro check, every neurological item that was a part of his neuro check was completely normal, and his corresponding note documents this (Deposition of Nurse Bromley, at 95:14-24; StoneCrest 17).

Nurse Bromley testified that Mr. Ruffino was "completely neurologically normal" at 1200 on February 17, 2016, which he knew as a result of his ongoing neuro checks under his watch (Deposition of Nurse Bromley, at 98:12-21).

At 1207, an EKG was performed that was abnormal, with the specific findings including sinus bradycardia, possible left atrial enlargement, and incomplete right bundle branch block (StoneCrest 66-68).

Dr. Clark Archer, an ER physician, first saw the patient in the ER at approximately 1220 (Deposition of Dr. Archer, at 31:20-32:10). Before Dr. Archer first saw the patient at approximately 1220, Nurse Bromley never saw Mr. Ruffino demonstrate a facial droop of any kind, any limited motor function or one-sided movement, or abnormal or slurred speech, and Nurse Bromley would have documented any such thing had he seen it (Deposition of Nurse Bromley, at 40:25-41:22).

Dr. Archer's Physical Exam revealed that the patient was oriented x 3, with slow, slurred speech (StoneCrest 5). His right hand was weaker than his left hand (StoneCrest 13). He had dysphasia and right arm weakness (StoneCrest 13). He as alert and his pupils were ERL (StoneCrest 14). His Glasgow Coma Scale Score was 15 (StoneCrest 15). A Neurology consult was

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

requested (StoneCrest 8). The Primary Impression by 1411 this day documented by Dr. Clark Archer, the ER physician, was TIA / CVA Syndrome, Acute (StoneCrest 9).

At 1252, a CT angiogram of the head and neck were ordered, with the reason for the ordering of this imaging being documented as "Neurological Deficit" (StoneCrest 40-41). The CTA of the head demonstrated a complete occlusion of the proximal Left MCA M1 segment. The CTA of the neck was interpreted as demonstrating no occlusion of hemodynamic stenosis (StoneCrest 61-62). This CTA was performed less than one hour after Mr. Ruffino developed a new neurological problem after the neuro checks demonstrated completely normal neurological findings at 1000, 1015, 1030, 1045, 1100, and 1200.

At 1253, a Code Stroke was called, Mr. Ruffino had some slurred speech, and another CTA was ordered (StoneCrest 22). This Code Stroke was called less than one hour after Mr. Ruffino developed a new neurological problem after the neuro checks demonstrated completely normal neurological findings at 1000, 1015, 1030, 1045, 1100, and 1200.

From 1000-1200, the patient was neurologically normal – both per the StoneCrest records and per the deposition testimony in this case from the nurse who performed six different neurological checks on the patient during this two hour time period, Nurse Bromley. Those neurological checks and corresponding documentation provide factual information that the patient was completely neurologically normal during this two hour time period.

The first time that Nurse Bromley saw any neurological abnormality in Mr. Ruffino on February 17, 2016 from 1000 forward was at approximately 1300 when the patient had a speech abnormality (Deposition of Nurse Bromley, at 98:23-99:21, 100:8-14, and 101:15-21; StoneCrest 18). The speech abnormality present at 1300 was a change since the neuro check performed at 1200 that same day (Deposition of Nurse Bromley, at 99:7-21). The first time that Nurse Bromley "had any reason to think Mr. Ruffino had a sign or symptom of stroke [was] when there was the abnormal speech around 1:00 p.m. on February 17th" (Deposition of Nurse Bromley, at 111:24-112:3).

Nurse Bromley has no memory of Mr. Ruffino having any neurological abnormality under his care prior to 1300 (Deposition of Nurse Bromley, at 103:13-17). Nurse Bromley testified that he would have documented any such abnormality if he had noticed any such thing (Deposition of Nurse Bromley, at 103:13-20).

In February 2016, Nurse Bromley could tell an ER physician if he saw a change in a patient's condition (Deposition of Nurse Bromley, at 25:5-14). In fact, he had the ability to contact an ER physician if he thought an ER patient was in the midst of a new stroke and if he was seeing that ER patient in the first two hours of the onset of new symptoms (Deposition of Nurse Bromley, at 34:2-8). However, he did not contact an ER physician about Mr. Ruffino because he did not think that Mr. Ruffino was having a stroke during his involvement (prior to 1300) (Deposition of

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

Nurse Bromley, at 34:15-21). For this same reason, Nurse Bromley never asked a physician to see Mr. Ruffino in the ER (Deposition of Nurse Bromley, at 39:25-40:4).

Dr. Osman Raad mentioned something to Nurse Bromley about Mr. Ruffino having a potential speech abnormality, and Nurse Bromley has no reason to think this was mentioned prior to 1300 (Deposition of Nurse Bromley, at 107:16-20).

Nurse Bromley testified that the first time he knows of anyone noticing a neurological change or abnormal neurological issue in Mr. Ruffino was at approximately 1300 (Deposition of Nurse Bromley, at 108:23-109:9). It was around 1300 when a Code Stroke was called, which was in response to that new neurological change (Deposition of Nurse Bromley, at 108:23-109:12). When the Code Stroke was called at approximately 1300, Nurse Bromley had seen the patient in a normal neurological state consistently from 1000-1200 (Deposition of Nurse Bromley, at 109:13-19).

By approximately 1300 on February 17, 2016, Nurse Bromley told Dr. Archer that Mr. Ruffino had been neurological normal from 1000-1200 that day (Deposition of Nurse Bromley, at 122:11-123:1). Therefore, Nurse Bromley remembers that he told Dr. Archer when Dr. Archer first saw the patient and requested a neuro consult that the patient had been "neurologically normal" from 1000 to 1200" (Deposition of Nurse Bromley, at 123:2-9). Nurse Bromley told Dr. Archer that the patient had been neurologically normal from 1000-1200 because Nurse Bromley thought this information would have some relevance, and he left it up to Dr. Archer to decide what to do with that information as the physician (Deposition of Nurse Bromley, at 128:24-129:8). Nurse Bromley does not remember what Dr. Archer said or did in response to that information (Deposition of Nurse Bromley, at 128:14-23).²

When Mr. Ruffino had a speech abnormality when Dr. Archer saw him, Dr. Archer considered that this could have been a neurological change due to an ischemic stroke (Deposition of Dr. Archer, at 43:6-18).

The speech abnormality that Nurse Bromley documented as existing at 1400 as "expressive aphasia" was the same speech abnormality that he documented as being present at 1300 as "slurred speech" (Deposition of Nurse Bromley, at 102:4-103:1; StoneCrest 19).

At 1411, Dr. Archer electronically signed his note regarding his initial contact with Mr. Ruffino that began around 1220, and Dr. Archer chose to select a template for this note entitled "Stroke/CVA" (Deposition of Dr. Archer, at 41:25-42:25; StoneCrest 3-9).

² Dr. Archer testified that he does not remember and "truly cannot state" what Nurse Bromley told him about Mr. Ruffino's history or problems other than that he presented by ambulance, that there had been some dizziness on presentation, that there was a history of seizures, and that the patient did not take his Neurontin that day (Deposition of Dr. Archer, at 68:11-69:5).

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

At 1414, Mr. Ruffino was given aspirin (StoneCrest 43, 45 and 69).

At 1414, an MRI of the brain was ordered (StoneCrest 48).

At 1521, Dr. Suresh Chitturi dictated his Consult Report regarding the neurology consult performed by Dr. Chitturi (StoneCrest 27-28). The documented Reason for Consultation was right facial weakness and speech difficulties (StoneCrest 27). The patient had been suffering similar episodes for approximately one month, including right-sided weakness, and the events until this day lasted only 3-5 minutes and would completely resolve (StoneCrest 27). As Nurse Bromley testified, he told Dr. Archer by approximately 1300 that day that the patient had been completely neurologically normal from 1000-1200 that day (Deposition of Nurse Bromley, at 122:11-123:1).

Dr. Chitturi did not document any awareness that the patient was reportedly completely normal neurologically per the neuro checks performed from 1000-1200, which may not have been known by Dr. Chitturi because those neuro checks were not documented until after 1600 that day and because Dr. Archer did not tell Dr. Chitturi what Nurse Bromley had told Dr. Archer by 1300 that day – that Mr. Ruffino was neurologically normal when every neurological check was performed from 1000-1200 that day (StoneCrest 15-17). However, as Nurse Bromley testified, he told Dr. Archer by approximately 1300 that day that the patient had been completely neurologically normal from 1000-1200 that day (Deposition of Nurse Bromley, at 122:11-123:1).

Dr. Chitturi documented that the recent workup that included an MRI of the brain and possibly an MR angiogram were reportedly normal (StoneCrest 27). The patient's treating neurologist (Dr. Efobi) was treating him with gabapentin for what she diagnosed as seizures (StoneCrest 27).

On physical examination, Dr. Chitturi found that the patient had some right facial weakness, slurred speech, and expressive aphasia (StoneCrest 28). He was A&Ox3 (StoneCrest 28).

Dr. Chitturi's Assessment included "likely stroke" based on the mild right facial weakness and dysarthric speech with some mild expressive aphasia (StoneCrest 28). Dr. Chitturi again noted that, at the time of his consult, the patient was already beyond "the window for any intervention including TPA and endovascular at this time" (StoneCrest 28), and this appears to be based on a presumption by Dr. Chitturi that the patient had continued and persistent symptoms since 0800-0830, but, as Nurse Bromley testified, the patient was neurologically normal from 1000-1200 that day and Nurse Bromley told Dr. Archer by approximately 1300 that day that the patient had been completely neurologically normal from 1000-1200 that day (Deposition of Nurse Bromley, at 122:11-123:1).

Nurse Bromley testified that the ER nurses do not talk with the neurologists (Deposition of Nurse Bromley, at 119:19-120:14). According to Nurse Bromley, the ER physician speaks with the neurologist who performs the consult regarding what the patient's neurological status has

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

been (Deposition of Nurse Bromley, at 119:19-120:14). It is not clear why or whether Dr. Archer was unable or unwilling to talk with Dr. Chitturi, the neurologist, regarding the fact that Nurse Bromley had told Dr. Archer by 1300 that the patient was neurologically normal that same day from 1000-1200.

The patient was to be transferred to Centennial Medical Center for a higher level of care, including to be cared for in the Neuro ICU (StoneCrest 9). At 2150, Mr. Ruffino was transferred to Centennial Medical Center (StoneCrest 10).

At Centennial Medical Center, the History & Physical dictated on the morning of February 18, 2016 documented that the patient had right-sided weakness, facial droop, and was favoring his left hand (Centennial 16-18). It was noted that the patient was admitted for conservative management because the window for thrombolytics had passed prior to the arrival at Centennial (Centennial 16-18).

On February 18, 2016, a head CT was performed at Centennial that demonstrated decreased perfusion through the left MVA distribution of the parasylvian left temporal, parietal, and frontal lobes without evidence of ischemia (Centennial 51-52). Also on February 18, 2016, an MRI of the brain was performed at Centennial that demonstrated acute left-sided infarcts, mainly involving the left basal ganglia and corona radiata (Centennial 52). The Diagnosis documented on February 18, 2106 was acute thromboembolic CVA (Centennial 52).

On February 19, 2016, it was documented that the patient had made some progress via the treatment that was provided at Centennial (Centennial 50).

The February 26, 2016 Discharge Summary documents the Primary Discharge Diagnosis as acute CVA, MCA, residual dysarthria (Centennial 14). It was noted that the patient was outside the window for thrombolytics by the time he arrived via transfer to Centennial (Centennial 14).

When Dr. Archer identified the new neurological deficits at or soon after 1220, and knew by 1300, per Nurse Bromley's testimony, that these neurological deficits were not present from 1000-1200 and the patient was last seen neurologically normal as recently as 1200, it was within the window of time at 1220-1300 for treatment for the stroke including IV tPA and an endovascular thrombectomy to have likely provided Mr. Ruffino with a better outcome than he received without that treatment being provided. The treatment that could have been provided by Dr. Archer and/or under his direction and/or management was to administer IV tPA and to arrange for transfer to a comprehensive stroke center. Had those things been done within at least 6 hours of Dr. Archer first seeing the patient at approximately 1220, Mr. Ruffino would have had a better outcome from his stroke. That improved blood flow via such treatment being provided within 6 hours of 1200 would have likely limited or prevented the permanent brain injury that occurred as a result of the lack of such treatment causing that decreased blood flow through that vessel of the brain – thus providing a better outcome for the patient. In addition, if

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

there were stroke symptoms present at approximately 0800-0830 on February 17, 2016 that anyone thought were persistent and continuous through when Dr. Archer first saw the patient and recognized neurological deficits by 1220-1300, it was still within 6 hours of 0800-0830 for proper treatment, as mentioned herein, to have likely provided a better outcome for this stroke patient.

Discussion

At the time of the case, Mr. John Ruffino was a 56 year old man who presented to the StoneCrest emergency department on February 17, 2016 with the chief complaint of dizziness. During his visit to the emergency department, Mr. Ruffino developed symptoms of an acute stroke. A stroke, also known as a Cerebrovascular accident (CVA), is caused when the blood flow to a region of the brain stops or is greatly decreased. This can be caused when a blood vessel breaks in the brain, which is called a hemorrhagic stroke. Or, it can be caused when a blood clot or debris blocks the flow of blood, which is called an ischemic stroke. By performing a CT scan of the head without contrast it can be determined whether a stroke is hemorrhagic or ischemic.

Once identified as ischemic, it is possible to clear the blockage, reduce the size of the blockage, or simply to increase the overall blood flow to the area of the brain that is choked off from blood flow by giving the medicine IV rtPA. IV rtPA works by converting a protein in the blood called plasmin in to plasminogen. Plasminogen in turn degrades fibrin and fibrinogen. Fibrin and fibrinogen are components of the blood clots made by the body. By degrading the blood clots involved in the stroke, the blood flow to the air-starved area of the brain is increased or restored completely.

As discovered from the medical record, Mr. Ruffino exhibited at least four of the symptoms of acute stroke. The first was a facial palsy, which is weakness in one side of the face relative to the other. The second was right arm weakness as compared to his left arm. The third was expressive aphasia, which is characterized by partial loss of the ability to produce language although comprehension generally remains intact. Speech generally includes important content words, but leaves out function words that have only grammatical significance and not real-world meaning, such as prepositions and articles. The fourth was dysarthria, which is difficult or unclear articulation of speech that is otherwise linguistically normal, also known as slurred speech.

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

The National Institutes of health created a system for recognizing the symptoms of stroke and judging the severity of a stroke called the NIHSS. This scale has been widely used since the 1990's. Although the specific values of the NIHSS cannot be found in the medical record, the total value of 4 was recorded by Dr. Clark Archer. Using the physical examinations found in the medical record as a guide, Mr. Ruffino's NIHSS would have looked as follows in Figure 4:

Figure 4: John Ruffino's probable NIHSS

(Begin Figure 4)

Instructions	Scale Definition	Score
1a. Level of consciousness	<p>0 = Alert</p> <p>1 = Not alert; but arousable by minor stimulation to obey, answer, or respond.</p> <p>2 = Not alert; requires repeated stimulation to attend, or is obtunded and requires strong or painful stimulation to make movements (not stereotyped).</p> <p>3 = Responds only with reflex motor or autonomic effects or totally unresponsive, flaccid, and areflexic.</p>	0
1b. LOC questions	<p>0 = Answers both questions correctly.</p> <p>1 = Answers one question correctly.</p> <p>2 = Answers neither question correctly.</p>	0
1c. LOC commands	<p>0 = Performs both tasks correctly.</p> <p>1 = Performs one task correctly.</p> <p>2 = Performs neither task correctly.</p>	0
2. Best gaze	<p>0 = Normal.</p> <p>1 = Partial gaze palsy; gaze is abnormal in one or both eyes, but forced deviation or total gaze paresis is not present.</p> <p>2 = Forced deviation, or total gaze paresis not overcome by the oculocephalic maneuver.</p>	0
3. Visual	<p>0 = No visual loss. 1 = Partial hemianopia.</p> <p>2 = Complete hemianopia.</p> <p>3 = Bilateral hemianopia (blind including cortical blindness).</p>	0

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

4. Facial palsy	<p>0 = Normal symmetrical movements.</p> <p>1 = Minor paralysis (flattened nasolabial fold, asymmetry on smiling).</p> <p>2 = Partial paralysis (total or near-total paralysis of lower face).</p> <p>3 = Complete paralysis of one or both sides (absence of facial movement in the upper and lower face).</p>	1
5. Motor arm	<p>0 = No drift; limb holds 90 (or 45) degrees for full 10 seconds.</p> <p>1 = Drift; limb holds 90 (or 45) degrees, but drifts down before full 10 seconds; does not hit bed or other support.</p> <p>2 = Some effort against gravity; limb cannot get to or maintain (if cued) 90 (or 45) degrees, drifts down to bed, but has some effort against gravity.</p> <p>3 = No effort against gravity; limb falls. 4 = No movement.</p> <p>UN = Amputation or joint fusion, explain: _____</p> <p>5a. Left arm</p> <p>5b. Right arm</p>	0 1
6. Motor leg	<p>0 = No drift; leg holds 30-degree position for full 5 seconds.</p> <p>1 = Drift; leg falls by the end of the 5-second period but does not hit bed.</p> <p>2 = Some effort against gravity; leg falls to bed by 5 seconds, but has some effort against gravity.</p> <p>3 = No effort against gravity; leg falls to bed immediately.</p> <p>4 = No movement.</p> <p>UN = Amputation or joint fusion, explain: _____</p> <p>6a. Left leg</p> <p>6b. Right leg</p>	0 0
7. Limb ataxia	<p>0 = Absent.</p> <p>1 = Present in one limb.</p> <p>2 = Present in two limbs.</p> <p>UN = Amputation or joint fusion, explain: _____</p>	0

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troy pope@mac.com

8. Sensory	<p>0 = Normal; no sensory loss.</p> <p>1 = Mild-to-moderate sensory loss; patient feels pinprick is less sharp or is dull on the affected side; or there is a loss of superficial pain with pinprick, but patient is aware of being touched.</p> <p>2 = Severe to total sensory loss; patient is not aware of being touched in the face, arm, and leg.</p>	0
9. Best language	<p>0 = No aphasia; normal.</p> <p>1 = Mild-to-moderate aphasia; some obvious loss of fluency or facility of comprehension, without significant limitation on ideas expressed or form of expression. Reduction of speech and/or comprehension, however, makes conversation about provided materials difficult or impossible. For example, in conversation about provided materials, examiner can identify picture or naming card content from patient's response.</p> <p>2 = Severe aphasia; all communication is through fragmentary expression; great need for inference, questioning, and guessing by the listener. Range of information that can be exchanged is limited; listener carries burden of communication. Examiner cannot identify materials provided from patient response.</p> <p>3 = Mute, global aphasia; no usable speech or auditory comprehension.</p>	1
10. Dysarthria	<p>0 = Normal.</p> <p>1 = Mild-to-moderate dysarthria; patient slurs at least some words and, at worst, can be understood with some difficulty.</p> <p>2 = Severe dysarthria; patient's speech is so slurred as to be unintelligible in the absence of or out of proportion to any dysphasia, or is mute/anarthric.</p> <p>UN = Intubated or other physical barrier,</p> <p>explain: _____</p>	1
11. Extinction and inattention	<p>0 = No abnormality.</p> <p>1 = Visual, tactile, auditory, spatial, or personal inattention or extinction to bilateral simultaneous stimulation in one of the sensory modalities.</p> <p>2 = Profound hemi-inattention or extinction to more than one modality; does not recognize own hand or orients to only one side of space.</p>	0
Total:		4

(End Figure 4)

This illustrates that Mr. Ruffino had a measurable neurologic deficit.

Through numerous clinical trials and peer reviewed journal articles, it has been established that anyone who has a measurable deficit, meets the Inclusion criteria and does not possess any of the exclusion criteria should receive IV rtPA if they present within 4.5 hours of treatment. This medical literature includes the NINDS rtPA stroke study group in 1995, the ATLANTIS Trial in 2002, the SITS-MOST in 2007, the SITS-ISTR in 2008, the ECASS-III in 2008, and

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

the AHA/ASA guidelines for the early management of patients with acute ischemic stroke in 2013. The AHA/ASA guidelines in 2013 were a revision to guidelines that had been in place since 2002.

Once this measurable neurologic deficit is discovered, a CT scan should be performed and blood sent to the lab. Both of these actions had been taken well before Dr. Archer was involved in the case. He had all of the information needed to assess the inclusion and exclusion criteria for the administration of IV rtPA.

At 1220, when D. Clark Archer became involved in the case, the inclusion and exclusion criteria for IV rtPA should have been used to see if Mr. Ruffino would benefit from IV rtPA. Assessment of Mr. Ruffino's inclusion and exclusion criteria at 1220PM on 2/17/16 would have looked as follows in Figure 5:

Figure 5: Assessment of John Ruffino's Inclusion and Exclusion criteria for IV rtPA

Inclusion Criteria	YES/NO
Diagnosis of Ischemic stroke causing measurable neurologic deficit	YES
Onset of symptoms <3 hours before beginning treatment	YES
Age ≥18 years	YES
Exclusion Criteria	
Stroke or head trauma in the previous three months	NO
Symptoms suggestive of subarachnoid hemorrhage	NO
Arterial puncture at a noncompressible site in the previous seven days	NO
History of previous intracranial hemorrhage	NO
Intracranial neoplasm, arteriovenous malformation, or aneurysm	NO
Recent intracranial or intraspinal surgery	NO
Elevated blood pressure	NO
Active internal bleeding	NO
Acute bleeding diathesis, including but not limited to conditions defined in 'Hematologic'	NO
Platelet count <100,000/mm ³	NO
Heparin use within 48 hours and an abnormally elevated aPTT	NO
Current anticoagulant use with an INR >1.7 or PT >15 seconds	NO
Current use of a direct thrombin inhibitor or direct factor Xa inhibitor with evidence of anticoagulant effect by laboratory tests such as aPTT, INR, ECT, TT, or appropriate factor Xa activity assays	NO
Blood glucose <50 mg/dL (<2.7 mmol/L)	NO
CT demonstrates multilobar infarction (hypodensity > 1/3 cerebral hemisphere)	NO

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

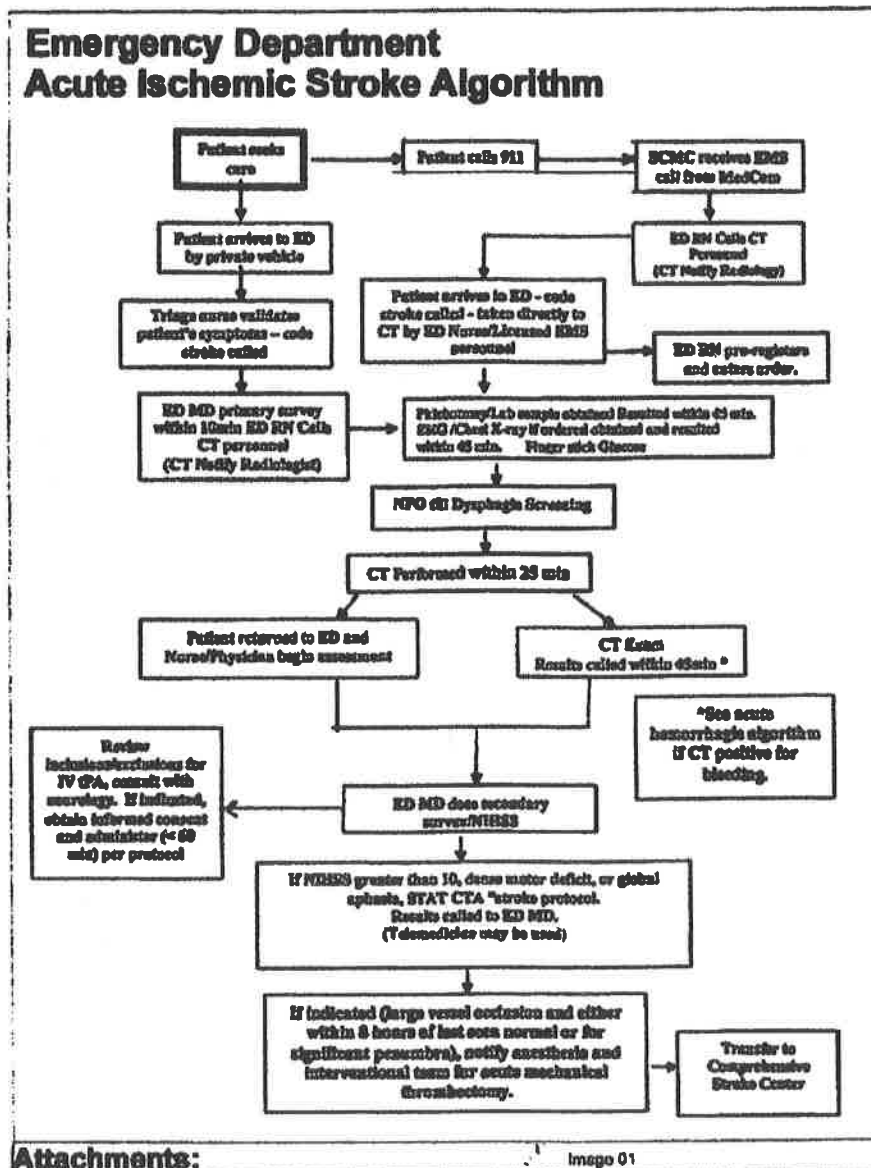
916-420-4337 troypope@mac.com

Relative Exclusion Criteria	
Only minor or rapidly improving stroke symptoms (clearing spontaneously)	NO
Pregnancy	NO
Seizure at the onset of stroke with postictal residual neurologic impairments	NO
Major surgery or serious trauma in the previous 14 days	NO
Recent gastrointestinal or urinary tract hemorrhage (within previous 21 days)	NO
Recent acute myocardial infarction in the previous three months	NO
Additional Exclusion Criteria (if presentation is between 3 and 4.5 hours from symptom onset)	
Age >80 years	NO
Severe stroke (NIHSS score >25)	NO
Taking an oral anticoagulant regardless of INR	NO
History of both diabetes and prior ischemic stroke	NO

The above sequence of events shows that John Ruffino was having an acute ischemic stroke and that he had met all of the inclusion and exclusion criteria for the administration of IV rtPA. At that moment the standard of care dictates that John Ruffino should have received IV rtPA and should have immediately been transferred to a comprehensive stroke center. StoneCrest Medical Center has a stroke protocol that encompasses all of the above discussion, and includes a clear algorithm. This protocol was not followed. The algorithm is included below as Figure 6.

Troy T. Pope MD, FACEP Consulting
Emergency Medicine
67 Lula Cove Rd, Weaverville, NC 28787
916-420-4337 troypope@mac.com .

Figure 6: StoneCrest Medical Center Emergency Department Acute Ischemic Stroke Algorithm



Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

The long-term outcome of patients who receive IV rtPA is significantly better than those who do not receive the medicine. This has been established in all of the aforementioned clinical trials and many other trials not mentioned in this report. This improved outcome is illustrated in Figure 7 and Figure 8 below:

Figure 7: Outcome at 3 months from the NINDS, 1995

This shows 4 different ways to measure the function of a patient and the severity of the remaining stroke symptoms after three months. The top bar of each represents patients who did not receive IV rtPA. The bottom bar represents those that did. More patients to the left of the bar represents a more favorable outcome.

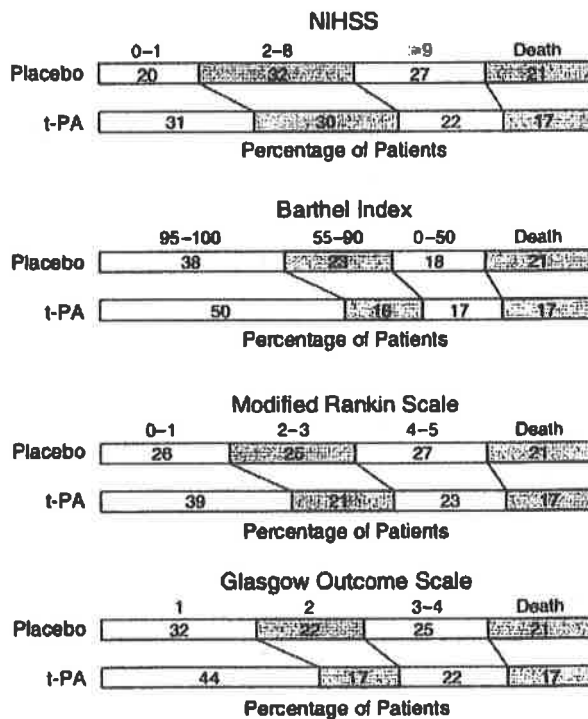


Figure 2. Outcome at Three Months in Part 2 of the Study, According to Treatment.

Scores of ≤ 1 on the NIHSS, 95 or 100 on the Barthel index, ≤ 1 on the modified Rankin scale, and 1 on the Glasgow outcome scale were considered to indicate a favorable outcome. Values do not total 100 percent because of rounding.

Troy T. Pope MD, FACEP Consulting

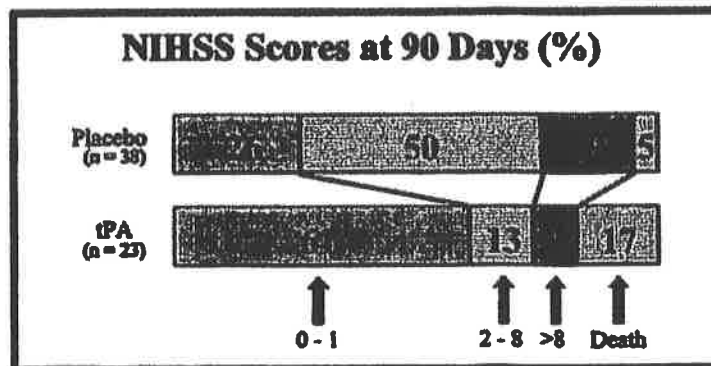
Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Figure 8: NIHSS Scores at 90 days (% of patients). From the ATLANTIS Trial, 2002

The top bar represents patients who did not receive IV rtPA. The bottom bar represents those that did. More patients to the left of the bar represents a more favorable outcome.



Outcome at 90 days based on NIHSS score. Scores of 0 to 1 were considered to indicate a very favorable outcome.

In conclusion, the care, skill or knowledge exercised or exhibited by Dr. Clark Archer in the treatment of John Ruffino fell outside acceptable medical professional standards when he was not given IV rtPA and transferred to a comprehensive stroke center. Had Dr. Archer taken action to make sure that the patient was provided with treatment for this new stroke soon after 1300, the patient likely would have had a better outcome – including that the patient would have less of a deficit and less severe ongoing problems from the stroke. Also, If Nurse Bromley failed to meet the standard of care if he failed to communicate that John Ruffino had developed new neurologic symptoms between 1200 and 1300.

Qualifications

A copy of my CV is attached which contains a list of all of my publications.

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

I, Troy Pope MD, FACEP was licensed to practice medicine in Kentucky and practiced medicine, including the specialty of Emergency Medicine, in Kentucky, during the 12 month period immediately prior to February 17, 2016.

I earned my undergraduate degree from the University of Virginia in 1998. I earned my medical degree from the Medical College of Georgia School of Medicine in 2002. My post-graduate training in medicine included completing a residency program in Emergency Medicine at the University of Kentucky in 2005. I have been certified by the American Board of Emergency Medicine since 2006.

I have practiced the medical specialty of Emergency Medicine for over 10 years, and this includes seeing and treating stroke patients in an ER setting, and working with nurses in an ER setting, including during the provision of care and treatment to stroke patients. This experience also includes seeing how treatment for stroke patients in an ER setting can improve patient outcomes based on during what time interval after the onset of signs and symptoms since the time that the patient was last seen neurologically normal appropriate treatment is provided for such a stroke.

Since 2013, I have continuously worked as an ER physician at St. Joseph London Hospital in London, Kentucky.

Based on my education, training, and experience, I am familiar with the recognized standard of acceptable professional practice that applied to the care and treatment provided to John Ruffino on February 17, 2016 in the StoneCrest ER in the Smyrna, Rutherford County, Tennessee medical community or in similar medical communities (the standard of care). In February 2016, one medical community I was familiar with that was similar to the Smyrna, Rutherford County, Tennessee medical community is Laurel County, Kentucky. This familiarity includes the performance of initial assessments by nurses, ongoing monitoring by nurses, neurological checks (neuro checks) by nurses, physical examinations by ER physicians, and actions and decision-making by ER physicians – including the ordering of imaging, initiating tPA, transfer to comprehensive stroke centers, and working with and communicating with a consulting neurologist regarding these treatment components, all of which are affected by the patient's signs and symptoms of a new stroke, the onset of those signs and symptoms, when the patient was last neurologically normal prior to the time / care in question, and recent medical literature regarding outcomes for stroke patients as published in peer-reviewed medical journals.

As a result of applying my education, training, and experience to my review of the case materials referenced above, I have formed opinions regarding (1) what care and treatment was required under the standard of care as it applied to the care and treatment provided to John Ruffino on February 17, 2016 in the StoneCrest ER in the Smyrna, Rutherford County, Tennessee medical community or in similar medical communities and (2) whether the care that was

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

provided fell below what was required under that standard of care. Also based on my education, training, and experience, I am familiar with the likely outcomes for stroke patients, including based on factors such as the patient's signs and symptoms of a new stroke, the onset of those signs and symptoms, when the patient was last neurologically normal prior to the time / care in question, and the recent medical literature regarding outcomes for stroke patients as published in peer-reviewed medical journals, and I have formed opinions in this matter on (3) causation.

Compensation

My fees for expert witness services are as follows:

\$1200 nonrefundable retainer for up to 3 hours of work and \$350/hr

\$1500 deposition minimum for up to 3 hours and \$400/hr thereafter

\$5000 per day for trial

Past Testimony

My testimony as an expert witness in the past four years, either via deposition or at a trial, is limited to Noel Espino and Rose Espino v Jarad McCargo, et al, 7/29/17, Fayette county, Kentucky.

Materials Reviewed

(1) Bates numbered medical records from StoneCrest Medical Center for the February 17, 2016 ER presentation and care

(2) Bates numbered medical records from Centennial Medical Center for February 2016

(3) The radiologist interpretations of imaging performed at StoneCrest and Centennial in February 2016

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

(4) The deposition testimony given by

- (a) Dr. Clark Archer
- (b) Nurse Carol McCulloch
- (c) Nurse Robert Bromley
- (d) John Ruffino
- (e) Martha Ruffino.

References

1. Adams Jr., Harold P. AHA/ASA Guideline. Guidelines for the Early Management of Adults with Ischemic Stroke. *Stroke*. 2007;38:1655-1711
2. Albers, Gregory W. ATLANTIS Trial, Results for Patients Treated Within 3 Hours of Stroke Onset. *Stroke*. 2002;33:493-496
3. Bluhmki, Erich et al. Stroke treatment with alteplase given 3.0-4.5 h after onset of acute ischaemic stroke (ECASS-III): additional outcomes and subgroup analysis of a randomized controlled trial. *Lancet Neurol* 2009; 8: 1095-102
4. Del Zoppo, Gregory J. AHA/ASA Science Advisory. Expansion of the Time Window for Treatment of Acute Ischemic Stroke with Intravenous Tissue Plasminogen Activator. *Stroke*. 2009;40:2945-2948
5. Hacke, Werner. Thrombolysis with Alteplase 3 to 4.5 hours after Acute Ischemic Stroke. *N Engl J Med* 2008;359:1317-29
6. Jauch, Edward C. et al. AHA/ASA Guideline. Guidelines for the Early Management of Patients with Acute Ischemic Stroke. *Stroke*. 2013;44:870-947
7. Tissue Plasminogen Activator for Acute Ischemic Stroke, NINDS rt-PA Stroke Study Group. *N Engl J Med* 1995;333:1581-7
8. Wahlgren, Nils et al. Thrombolysis with alteplase 3-4.5 h after acute ischaemic stroke (SITS-ISTR): an observational study. *Lancet* 2008; 372: 1303-09
9. Wahlgren, Nils et al Thrombolysis with alteplase for acute ischaemic stroke in the Safe Implementation of Thrombolysis in Stroke-Monitoring Study (SITS-MOST): an observational study. *Lancet* 2007; 369: 275-82
10. www.UpToDate.com

Troy T. Pope MD, FACEP Consulting

Emergency Medicine

67 Lula Cove Rd, Weaverville, NC 28787

916-420-4337 troypope@mac.com

Opinion Statement

Individually and together, the departures from standard of care more likely than not caused or contributed to cause the continued severity of John Ruffino's symptoms that resulted from brain injury sustained during an acute ischemic stroke on 2/17/16.

The above opinions are expressed to a reasonable degree of medical probability based on the case materials provided to me as of this date, and my emergency medicine expertise, experience, and education.

As such, it is my opinion to a reasonable degree of medical probability that the failures of Dr. Clark Archer to appropriately administer IV rtPA and transfer John Ruffino to a comprehensive stroke center, more likely than not worsened John Ruffino's outcome. If Nurse Tony Bromley failed to communicate that John Ruffino had developed new neurologic symptoms to Dr. Clark Archer between 1200 and 1300, this more likely than not worsened John Ruffino's outcome.

I reserve the option, should further information become available, to amend my opinions and expert report.



2/5/2018

Troy Pope, MD, FACEP



Troy T. Pope, MD, FACEP

67 Lula Cove Road
Weaverville, NC 28787
(888)988-5226
troypopc@mac.com



Curriculum Vitae

page 1 of 5

Specialty Areas of Expertise

- Over 10 years' experience as an Emergency Medicine attending physician in active practice
- Boarded in Emergency Medicine and Integrative and Holistic Medicine
- Proficient in Epic, Cerner, Wellsoft, Meditech, Medhost, Sunrise Clinical Manager, Chartmaxx, and T-system

Current Position

MESA OF TEAMHEALTH
Emergency Medicine Attending Physician
Haywood Regional Medical Center, North Carolina, 11/2017-present
Taylor Regional Medical Center, Campbellsville, Kentucky 12/2014-present
St. Joseph Hospital, London, Kentucky 9/2013-present
Springview Hospital, Lebanon, KY 2/2013-present

Certifications

American Board of Integrative and Holistic Medicine	2011
American Board of Emergency Medicine	2006

Licensure

North Carolina Medical Board	2012-present
Kentucky Board of Medical Licensure	2012-present
Oregon Medical Board	2011-present
California Medical Board	2005-present

Education

UNIVERSITY OF KENTUCKY <i>Lexington, Kentucky</i>	2005
• Emergency Medicine Residency	
GEORGIA HEALTH SCIENCES UNIVERSITY: Medical College of Georgia <i>Augusta, Georgia</i>	2002
• Doctor of Medicine	
✚ <i>cum laude</i>	
UNIVERSITY OF VIRGINIA <i>Charlottesville, Virginia</i>	1998
• Bachelor of Science in Chemistry	
✚ <i>cum laude</i>	



Troy T. Pope, M.D.

(888) 988-5226

troy pope@mac.com

Curriculum Vitae

page 2 of 5

Experience as an Emergency Medicine Physician

TEAMHEALTH

*Serve as a Traveling Attending Emergency Physician,
traveling/assigned to various healthcare facilities as the staffing needs arise
Kentucky, 2012-present*

Haywood Regional Medical Center

November 2017-present

Clyde, North Carolina

A regional community hospital and Duke LifePoint quality affiliate. The 18-bed ED is an American College of Cardiology chest pain referring center with a psychiatric ED unit and an inpatient psychiatric floor.

●40,000 patient visits per year – 33 hours of physician and 12 hours of midlevel coverage daily

Lake Cumberland Regional Hospital

April 2017-present

Somerset, Kentucky

A 295-bed community hospital and Duke LifePoint quality affiliate. The 24-bed ED with an 8 bed fast-track is an American College of Cardiology chest pain center with primary PCI for STEMI intervention as well as an advanced primary stroke center with neurosurgical services. The ED hosts residents from its two primary care residencies.

●35,000 patient visits per year – 24 hours of physician and 22 hours of midlevel coverage daily

Georgetown Community Hospital

November 2016-present

Georgetown, Kentucky

A 75-bed community hospital and Duke LifePoint quality affiliate. The 18-bed ED is an American College of Cardiology chest pain referring center.

●30,000 patient visits per year – 24 hours of physician and 22 hours of midlevel coverage daily

Taylor Regional Medical Center

December 2014-present

Campbellsville, Kentucky

One of two verified Level III trauma centers in Kentucky, and the longest consistently verified Level III trauma center in Kentucky with a 15 bed ED.

●30,000 patient visits per year – 24 hours of physician and 12 hours of midlevel coverage daily

Ephraim McDowell Regional Medical Center

January 2014-present

Danville, Kentucky

A non-profit, 222-bed licensed hospital providing a full continuum of care to six counties throughout central Kentucky with a TJC gold star for hip & knee replacement and spine surgery, and an inpatient psychiatry unit. The 20 bed ED is a level III trauma center and boasts an American College of Cardiology chest pain center certification with primary PCI for STEMI intervention.

●45,000 patient visits per year – 36 hours of physician and 24 hours of midlevel coverage daily

St. Joseph Hospital

September 2013-present

London, Kentucky

A 120-bed, nationally-ranked, award-winning general medical and surgical hospital founded in 1926 with a 24 bed ED, an 8 bed Fast-Track ED, and 24 hour Primary PCI for STEMI intervention.

●45,000 patient visits per year – 36 hours of physician and 36 hours of midlevel coverage daily

Pikeville Medical Center

May 2013-present

Pikeville, Kentucky

A 300-bed regional referral center; A member of the Mayo Clinic Care Network providing 400+ specialty and subspecialty services with American College of Cardiology Atrial Fibrillation care certification. The 28 bed ED with an 8 bed fast-track ED is a Level II trauma center, American College of Cardiology chest pain receiving center with primary PCI for STEMI intervention, and an American Heart Association primary stroke center for CVA intervention.

●50,000 patient visits per year – 36 hours of physician and 36 hours of midlevel coverage daily with scribes



Troy T. Pope, M.D.
(888) 988-5226
troy pope@mac.com

Curriculum Vitae

page 3 of 5

Experience as an Emergency Medicine Physician *continued*

Baptist Health Richmond

March 2013-present

Richmond, Kentucky

A 105-bed acute care hospital with a 20-bed fast-track ED and a cardiac cath lab with STEMI intervention.

●32,000 patient visits per year – 30 hours of physician and 30 hours of midlevel coverage daily

Clark Regional Medical Center

February 2013-present

Winchester, Kentucky

A 79-bed acute care hospital and Duke LifePoint quality affiliate. The 18-bed ED is an American College of Cardiology chest pain referring center.

●35,000 patient visits per year – 24 hours of physician and 36 hours of midlevel coverage daily

Springview Medical Center

February 2013-present

Lebanon, Kentucky

A 75-bed community hospital and Duke LifePoint quality affiliate. The 12-bed ED is an American College of Cardiology chest pain referring center.

●20,000 patient visits per year – 24 hours of physician coverage daily

University of Kentucky Good Samaritan Hospital

February 2013-March 2016

Lexington, Kentucky

An inner-city ED with 302 licensed beds in single-occupancy rooms, and home to Kentucky's second-largest orthopedic and joint replacement program as well as UK's psychiatric hospital. The 15-bed ED had 24 hour STEMI intervention, and Advanced Comprehensive Stroke care at the nearby UK Chandler Medical Center campus.

●30,000 patient visits per year – 24 hours of physician and 24 hours of midlevel coverage daily

Bourbon Community Hospital

February 2013-May 2015

Paris, Kentucky

Serving the counties of Bourbon and Nicholas, the 9 bed ED was an American College of Cardiology chest pain referring center.

●15,000 patient visits per year – 24 hours of physician coverage daily

WEATHERBY HEALTHCARE
Served as a Locum Tenens Attending Emergency Physician
Oregon, California, 2012-2013

Asante Three Rivers Medical Center

July 2012-September 2012

Grants Pass, Oregon

The largest healthcare provider in the area's nine counties, providing medical care to more than 580,000 people throughout southern Oregon and northern California. The 24 bed ED was an American College of Cardiology chest pain referring center.

●35,000 patient visits per year – 44 hours of physician coverage daily

Mercy General Hospital

January 2013-February 2013

Sacramento, California

A 342-bed inner-city hospital with special advocacy for the poor and underserved, and includes the nationally-recognized Dignity Health Heart & Vascular Institute with ACC atrial fibrillation care certification plus TJC heart failure and VAD accreditation. The 30 bed ED was an American Heart Association primary stroke center an American College of Cardiology chest pain center with primary PCI for STEMI intervention.

●50,000 patient visits per year – 36 hours of physician and 36 hours of midlevel coverage daily with scribes



Troy T. Pope, M.D.
(888) 988-5226
troy pope@mac.com

Curriculum Vitae

page 4 of 5

Experience as an Emergency Medicine Physician *continued*

SAMARITAN HEALTH SERVICES:

Good Samaritan Regional Medical Center *and* Samaritan Albany General Hospital

*Served as a Staff Attending Emergency Medicine Physician
at Samaritan's two facilities in the region*

Oregon, November 2011-December 2012

Samaritan Albany General Hospital

November 2011-December 2012

Albany, Oregon

A 79-bed acute care facility and health center providing medical services to the greater Albany, Oregon, area since 1924. The 14-bed ED averaged 3.1 patients per hour.

●27,000 patient visits per year – 24 hours of physician coverage daily

Good Samaritan Regional Medical Center

November 2011-December 2012

Corvallis, Oregon

A regional referral center and the largest hospital across three counties. The 24 bed ED was a Level II trauma center.

●35,000 patient visits per year – 36 hours of physician and 24 hours of midlevel coverage daily

THE NORTHBAY HEALTHCARE SYSTEM:

NorthBay Medical Center *and* NorthBay VacaValley Hospital

*Served as a Staff Attending Emergency Medicine Physician
at NorthBay Healthcare System's two facilities*

Fairfield & VacaValley, California, July 2005-October 2011

NorthBay Medical Center

July 2005-October 2011

Fairfield, California

A 132-bed top-tier urban facility. The 30 bed ED was a Level III trauma center, an American College of Cardiology chest pain center with primary PCI for STEMI intervention and an American Heart Association certified primary stroke center.

●45,000 visits per year – 40 hours of physician and 24 hours of midlevel coverage, with residents

NorthBay VacaValley Hospital

July 2005-October 2011

VacaValley, California

A 50-bed community hospital and sister facility to NorthBay Medical Center. The 16 bed ED transferred to the Fairfield campus for its acute trauma, STEMI, and stroke needs.

●25,000 visits per year – 24 hours of physician and 12 hours of midlevel coverage daily

Publications

1. Pope, T.T., *Maxillofacial and Neck Trauma*. In Stone CK, Humphries RL (eds). Current Emergency Diagnosis and Treatment 6th Edition, McGraw Hill Book Company, New York, 2008.
2. Pope T.T., & Rock, T.C., *Maxillofacial and Neck Trauma*. In Stone CK, Humphries RL (eds). Essentials of Emergency Medicine Diagnosis and Treatment 1st Edition, McGraw Hill Book Company, New York, 2005.
3. Pope T.T., & Rock, T.C., *Vertebral Column and Spinal Cord Trauma*. In Stone CK, Humphries RL (eds). Essentials of Emergency Medicine Diagnosis and Treatment 1st Edition, McGraw Hill Book Company, New York, 2005.



Troy T. Pope, M.D.
(888) 988-5226
troy pope@mac.com

Professional Memberships & Associations

American Board of Emergency Medicine (ABEM)	2006-present
Academy of Integrative Health & Medicine (AIHM)	2012-present
American College of Emergency Physicians (ACEP)	2013-present
Fellow of the American College of Emergency Physicians (FACEP)	2017-present

Committee Appointments

Sepsis Committee – NorthBay Healthcare, Fairfield, CA 2008-2011

Appointed to the NorthBay HealthCare's Sepsis Committee to serve as the Sepsis ED Physician Director. Designed sepsis protocol and algorithms for the ED. Worked with other committee members to identify ways to improve the provision of timely care to this large segment of the patient population and to discuss the upgrading of sepsis and insulin management, and sedation and pain policies.

Critical Care Committee – NorthBay Healthcare, Fairfield, CA 2007-2011

Served as the representative Emergency Department Physician member on this committee that was created to review and make suggestions or revisions regarding all policies and procedures that affect patient care in the critical care units at NorthBay Healthcare, including the Emergency Department. Collaborated with intensivists, pulmonologists, cardiologists, neurologists, hospitalists, nephrologists, and other committee members to discuss, identify, and actively pursue quality goals, including improvement of mortality outcomes, length of stay and improved functionality of patients leaving the ICU.

Code Blue Committee – NorthBay Healthcare, Fairfield, CA 2007-2011

Worked with committee to review code paperwork and current processes, and initiate improvement regarding protocols to follow and training to implement. Helped create and implement the Rapid Response Team.

Emergency Department Throughput Committee – NorthBay Healthcare, Fairfield, CA 2007-2011

Collaborated with clinical staff, house staff, and nursing staff regarding the ED's ability to increase patient satisfaction by improving front-end throughput from the ED to disposition.